

What is claimed is:

1. A phosphoramidite method for the synthesis of a nucleic acid oligomer with the use of an alcohol-type compound as an activator.
- 5 2. A phosphoramidite method for the synthesis of a nucleic acid oligomer with the use of a mixture of an alcohol-type compound and an acid catalyst as an activator.
3. A method according to Claim 1 or 2, wherein the alcohol-type compound is selected from the group consisting of
- 10 hydroxybenzotriazole-1-ol (HOBt), a HOBt-derivative and a phenol analogue.
4. A method according to Claim 1 or 2, wherein the HOBt-derivative has substituents at its 4 and/or 6 positions.
5. A method according to Claim 4, wherein the HOBt-derivative
- 15 is 6-trifluoromethylbenzotriazole-1-ol, 6-nitrobenzotriazole-1-ol, or 4-nitro-6-trifluoromethyl benzotriazole-1-ol.
6. A method according to Claim 3, wherein the phenol analogue is selected from the group consisting of 2,4-dinitrophenol,
- 20 3,4-dicyanophenol and 2-nitro-4-trifluoromethylphenol.
7. A method according to any one of Claims 2 - 6, wherein the acid catalyst is selected from the group consisting of imidazole, tetrazole and their derivatives.
8. A method according to Claim 7, wherein the acid catalyst is
- 25 benzimidazoletriflate (BIT), 4-ethylthiotetrazole, imidazolium triflate or 4,5-dicyanoimidazole.

9. A method according to any one of Claims 1-8, wherein a mixture comprising an equal amount of the alcohol-type compound and the acid catalyst is used as the activator.
10. A method according to any one of Claims 1-9 with the use
5 of a solid phase support.
11. A nucleic acid oligomer prepared by the method according to any one of Claims 1-10, which is at least 10-mer.
12. A nucleic acid oligomer according to Claim 11, which is a DNA oligomer of 20-mer.
- 10 13. A nucleic acid oligomer according to Claim 11 or 12 to be used for a DNA chip.